UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

MEMORANDUM **SRT-4J**

DATE : March 11, 1998

SUBJECT: Review of the Addendum No. 5 to QAPP for Quarterly Groundwater Monitoring at Blackwell Landfill, IL.

FROM: L. Finkelberg, Chemist
Field Services Section (FSS)

TO: M. Bellot, RPM

I have reviewed the Addendum No. 5 to QAPP for Quarterly Groundwater Monitoring at Blackwell Landfill, IL. This subject Addendum was received by FSS on February 9, 1998 (Log-in # 2388). The four Addendums to the QAPP have been "approved" based on previously "approved" Revision 1 QAPP (August 1996). The QAPP for the Pre-Design Investigation Work for the Blackwell Landfill and four Addendums have not been approved by the FSS; therefore, the attached to this memorandum are FSS comments and recommendations that describe the deficiencies of QAPP (Revision 1) and Addendum No. 5 and provide guidance for their resolution.

Deficiencies of the Revised QAPP.

I. Project Description (Section 1.6) .

Section 1.6 was not revised according to the previous memo. DQO should be based on the seven step process described in EPAQA/G-4 (September 1994) document. Please address the project specific DQO based on the current US EPA Region 5 Model QAPP (Revision 1 , May 1996).

II. Project Organization and Responsibilities (Section 2).

The involvement and responsibility of EPA Quality Assurance Reviewer are not addressed in this Section. Please note, that EPA Superfund Field Services Section (FSS) QA Reviewer is responsible for review and approval of all QAPPs. Please address it in this Section and in Fig. 1 .

III. Quality Assurance Objectives for Measurement Data.

Section 3.1 needs to be revised : MS/MSD samples **are** investigative samples. Please correct.

IV. Sampling Procedures.

The revised FSP was not provided with the Revised QAPP, therefore, I do not have a chance to see if the comments from the previous Memo were addressed.

V. SOP for VOA.

1. One of the comment from previous memo was not completely addressed. The SOP does not specify the acceptable control limits for MS/MSD recovery and acceptable % RPD. Table 3-2 of QAPP needs to be consistent

with the SOP QC information (audits and limits).
2. The acceptability of the Method Blank needs to be corrected: no target compounds should be present. There is no exception for Methylene Chloride and Acetone. Please correct.

VI. SOP for SVOA.

1. The provided SOP for SVOA needs to be revised to address the same deficiencies that are specified for VOA SOP.

2. No target compounds should be present in Method blank -phthalate compounds are not exception.

VII. SOP for ICAP Metals.

1. One of the comment from the previous memo is not adequately addressed: the QC information listed in Section 7 of SOP is inconsistent with the QC audits and control limits specified in Table 3-2 of QAPP.

2. Section 4 of SOP (Queue) needs to specify what "QC19" stands for. What is initial concentration of "QC19"?

3. Method SW-846 is required to run method blank through the complete procedure and contain the same acid concentration in the final solution as the sample solution used for analysis. Please addressed it in SOP.

Deficiencies of the Addendum No. 5 for Quarterly Groundwater Monitoring Program.

A. Title /Signature Page.

The Title/Signature Page should include the approval from US EPA RPM and QA Reviewer, and from the First Environmental Laboratory (QA

Officer and Laboratory Director).

B. Organization Chart (Figure 1)

The Organization Chart for the Blackwell Landfill Response Action needs to reflect the involvement of US EPA QA Reviewer and the laboratories responsible for the analysis.

C. SOP for SVOC analysis by Method 8270 C.

The SOP is a generic document and lacks a lot of information.

1. The appropriate sample preparation and clean-up methods should be addressed as part of SOP or as separate SOPs.

2. The SOP should address the following:

. Parameters of interest and achievable detection limits,

. Preparation of Internal Standard, Matrix Spike Standard, and GC/MS tuning standard. Please address what compounds will be used for Internal and Matrix Spike standards. The acceptable QC limits must be defined.

. Sample holding time after extraction.

. A system performance check must be made during every 12 hour shift. For each SPCC compound in a daily calibration a minimum Response factor of 0.050 must be obtained.

. Please provide more information how all quantitative and qualitative measurements will be performed.

. A Method Blank should not contain any compounds of interest. There is no exception of phthalate compounds.

D. SOP for Determination of Organic Compounds by method 525.2

The SOP needs to be revised for the following:

1. GC/MS/data system characteristic should be addressed in SOP. The QAQC is referenced for instrument specifications, but this information should be part of the OP.

2. Sample collection procedure should be part of SOP. The QAQC is referenced for this information, but where is QAQC?

3. The referenced Method 525.2 requires that samples must be extracted within 7 days. The SOP indicates that all but six compounds are stable for a period of 14 days , but the SOP does not specify what six compounds are not stable. Please follow the recommendation from the Method 525.2 and extract samples within 7 days.